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Central Intelligence Agency

Washington, D.C. 20505

FILE

MEMORANDUM FOR: Ben Bonk
Special Assistant to the Deputy Secretary
Department of Energy

SUBJECT: Coal Outlook in Japan, South Korea, and Taiwan [redacted] 25X1

Ben,

Attached is information on the coal outlook for Japan, South Korea, and Taiwan you requested for Deputy Secretary Martin. If you have any questions or comments, please call [redacted] 25X1
Chief, Energy Markets Branch, OGI [redacted] 25X1

[redacted] 25X1

Chief, Strategic Resources Division

Attachment:
Coal Outlook in Japan, South Korea, and Taiwan [redacted] 25X1
GI M 87-20148, August 1987, [redacted] 25X1

[redacted] 25X1
[redacted] 25X1

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SUBJECT: Coal Outlook in Japan, South Korea and Taiwan [redacted] 25X1

OGI/SRD/EMB [redacted] (24 August 1987) 25X1

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Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

24 August 1987

Coal Outlook in Japan, South Korea and Taiwan

Summary

Japan, South Korea, and Taiwan will remain major world coal importers through the end of the century. Last year coal consumption in the three countries combined approximated 160 million metric tons, representing about 15 percent of total free world demand. Coal imports for the group totaled 120 million metric tons, accounting for more than one-third of total world coal trade. The US is the third leading supplier to these markets--after Australia and Canada--providing nearly 16 percent of their import demand. Industry and government projections indicate coal import demand in these markets will rise by about 60 million MMT to roughly 180 MMT by the end of the century. US suppliers will likely face stiff competition in the years ahead as new suppliers--particularly China and Colombia--as well as traditional marketers strive to increase market share. [redacted] 25X1

This memorandum was prepared by [redacted] Energy Markets Branch, Office of Global Issues. The information contained herein is updated to 24 August 1987. Comments may be directed to [redacted] Chief, Strategic Resources Division, OGI [redacted] 25X1 25X1 2525X1

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[redacted] 25X1

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Coal Outlook in Japan, South Korea, and Taiwan

Demand Outlook

Coal consumption in Japan, South Korea, and Taiwan is expected to rise sharply through the end of the century according to industry and government projections. Coal consumption for the three countries combined is projected to grow from nearly 160 million metric tons (MMT) in 1986 to over 214 MMT by 2000. The industrial and power generation sectors will account for most of the increase in coal use. 25X1

Japan. Coal demand is expected to rise from 105 MMT last year to 146 MMT by 2000. Increased demand for steam coal used for power generation will more than offset lower demand for metallurgical coal. As Tokyo expands its coal-fired electric plants, coal for power production will rise from about 20 MMT now to nearly 70 MMT by 2000. 25X1

South Korea. Coal demand is expected to rise from about 42 MMT in 1986 to 47 MMT by 2000. Steam coal demand, primarily for industry and power, will remain flat to the end of the century, as South Korea continues its nuclear power program. Metallurgical coal demand, however, is expected to rise, in response to increased steel output. 25X1

Taiwan. Taiwan industry projections indicate Taiwan's coal consumption will increase from 13 MMT in 1986 to about 21 MMT by the end of the century. Imports will be primarily steam coal for use in the industrial and electric power sectors. Coal is expected to provide about half of all electric power by 2000. 25X1

Supply Outlook

Domestic Production. Coal production in the three countries combined is expected to decline from the current level of 40 MMT to about 32 MMT by 2000. Coal output in South Korea is expected to remain flat at 23-25 MMT per year to the end of the century. Japanese coal production is expected to fall from 16 MMT in 1986, to perhaps as low as 6 MMT by 2000 as high-cost mines are closed in favor of less costly imports. Coal production in Taiwan is expected to fall from only about 2 MMT in 1986 to 1 MMT by the end of the century. 25X1

Import Needs. Given the consumption and production estimates, coal import requirements for the three countries combined will jump from 120 MMT in 1986 to 182 MMT by 2000.

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Nearly 80 percent of the coal imported into Japan, South Korea, and Taiwan is currently provided by Australia, Canada, and the United States. Despite the expected increase in demand, competition for sales in these markets is expected to intensify as new suppliers enter the market. [redacted] 25X1

Japan. Japanese coal imports are expected to rise from 89 MMT last year to about 140 MMT by 2000. Australia is Japan's leading supplier, providing nearly 50 percent of total Japanese coal imports last year. Canberra met 42 percent of metallurgical coal imports and 65 percent of steam coal imports. US exports, mostly metallurgical coal to Japan approximated 12 MMT last year, third behind Australia and Canada. US deliveries of metallurgical coal will decline this year to perhaps 7 to 9 MMT, largely because of the anticipated drop in Japanese steel production. According to Japanese industry experts, US steam coal prices are $10-15 per ton higher than alternative suppliers. [redacted] 25X1

South Korea. South Korea's coal import needs are projected to grow from 19 million MMT last year to 22 MMT by 2000. Australia is South Korea's leading supplier, followed by the United States and Canada. US exports to South Korea last year amounted to 3 MMT. China is negotiating with South Korea for the sale of 3.5 MMT per year, rising to 5 MMT in 1990. [redacted] 25X1

Taiwan. Import demand is expected to rise sharply from 11 MMT in 1986 to 20 MMT in 2000. Last year Australia and the United States were the leading coal suppliers to Taiwan, providing 45 and 30 percent of imports, respectively. Taipei has agreed to purchase additional coal from the United States in an effort to reduce its trade surplus. Taiwan Power Company has been under pressure to buy US coal. Industry experts believe that since about half of the country's total exports go to the United States, Taipei is sensitive to US pressureto increase its coal purchases. [redacted] 25X1

<u>Newcomers in Asian Coal Markets.</u>

Increased export capacity from new suppliers, especially China and Colombia, will intensify competition in the Asian market in the years ahead. In addition, South Africa is turning to Asia to increase coal exports. [redacted] 25X1

China's current coal customers include Japan, Hong Kong, North Korea, Romania, the Philippines, Belgium, and France. China is poised to become a major coal exporter in the Asian market. As the least-cost coal supplier to Asian customers, China plans to raise coal exports from 10 MMT in 1986 to 30 MMT in 1990. A recent Japanese study suggests, however, that China will be hard pressed to export as much as 20 MMT by 1990 because of inadequate railroad and port facilities. The bulk of Chinese coal exports will be steam coal, for use by electric utilities and industry. South Korea is negotiating to buy Chinese coal. Although Tokyo is presently China's largest customer, Japanese buyers have criticized the quality of Chinese coal. [redacted] 25X1

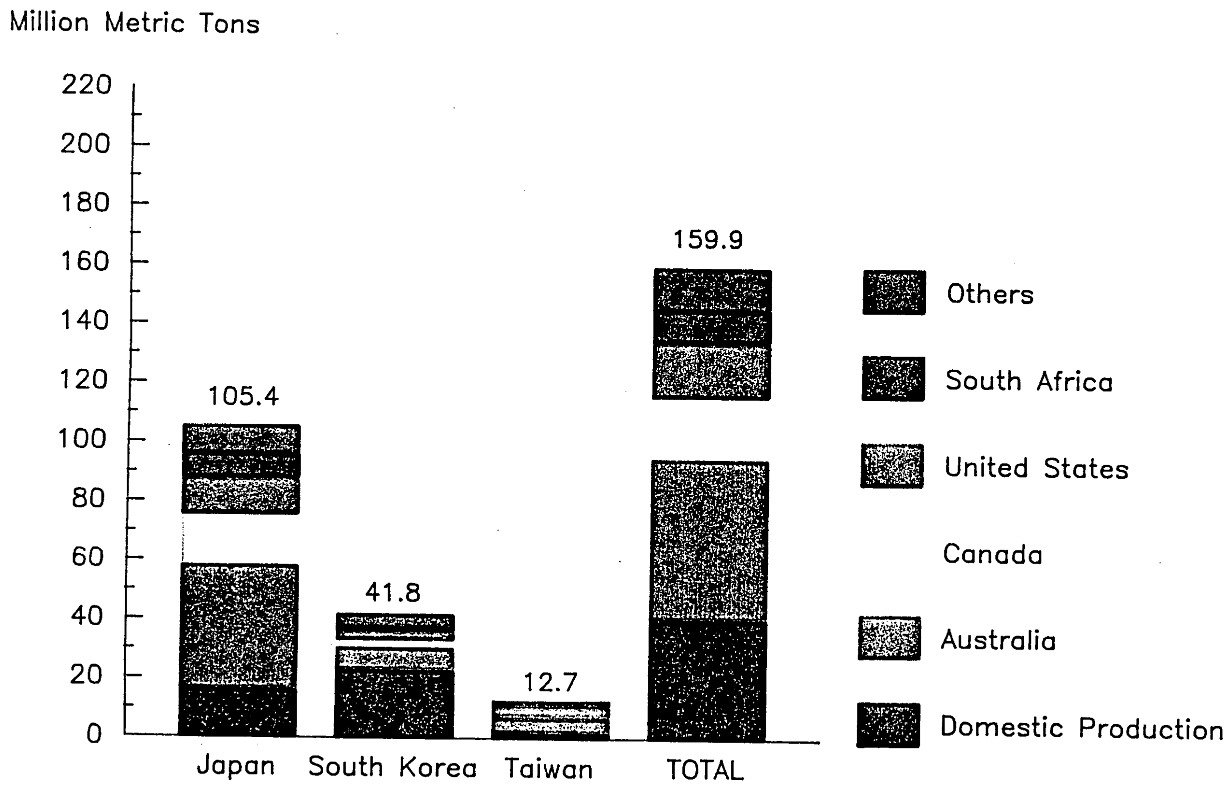
Colombia is a new coal exporter, and is expected to export about 9 MMT this year. The mine under development has a target capacity of 15 MMT per year, and other deposits could be developed if markets permit. Western Europe accounts for over 80 percent of Colomia's exports, with the remainder split evenly between the United States and Asian markets. Bogota recently announced its "Asian offensive," and [redacted] 25X1 25X1
[redacted] Columbia will soon conclude sales agreement for 1 MMT per year to both Hong Kong and South Korea. [redacted] 25X1

South Africa. In the face of sanctions and growing competition from other suppliers, Pretoria has recently become more active in the Asian market. South Africa currently sells about three-fourths of its coal exports to Western Europe. In 1986 33 MMT of its 44 MMT of coal exports went to Western Europe, with the remainder going to Japan, Taiwan, and South Korea. Although the country has postponed plans to expand the capacity of its major export port, Richards Bay, by 15 MMT, the country has the resources to raise production and exports markedly in the future. [redacted] 25X1

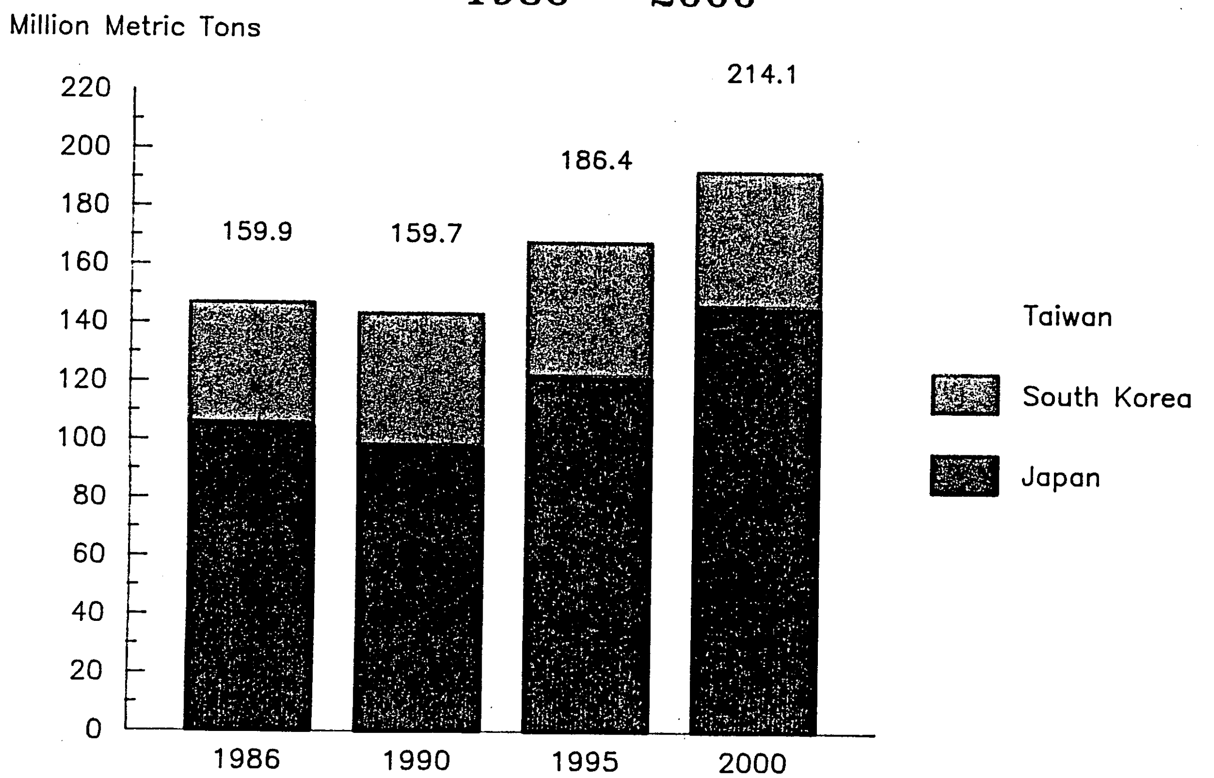
Implications for the United States

The expected sharp rise in coal import needs in Asian countries offers US coal exporters an opportunity to increase sales in the years ahead. As a high-cost producer and faced with new suppliers, US coal exporters will have a difficult time capturing the increased demand. While world coal trade increased in 1986 by about 10 percent to 335 MMT, price competition resulted in an 8 percent decline in US exports from year earlier levels. The presence of low-cost coal, from China and other suppliers, will pose a major challenge to US exporters over the coming years. [redacted] 25X1

1986 Coal Supply: Japan, South Korea, Taiwan



Coal Demand Outlook: Japan, South Korea, Taiwan 1986 - 2000



Coal Import Demand: Japan, South Korea, Taiwan 1986 - 2000

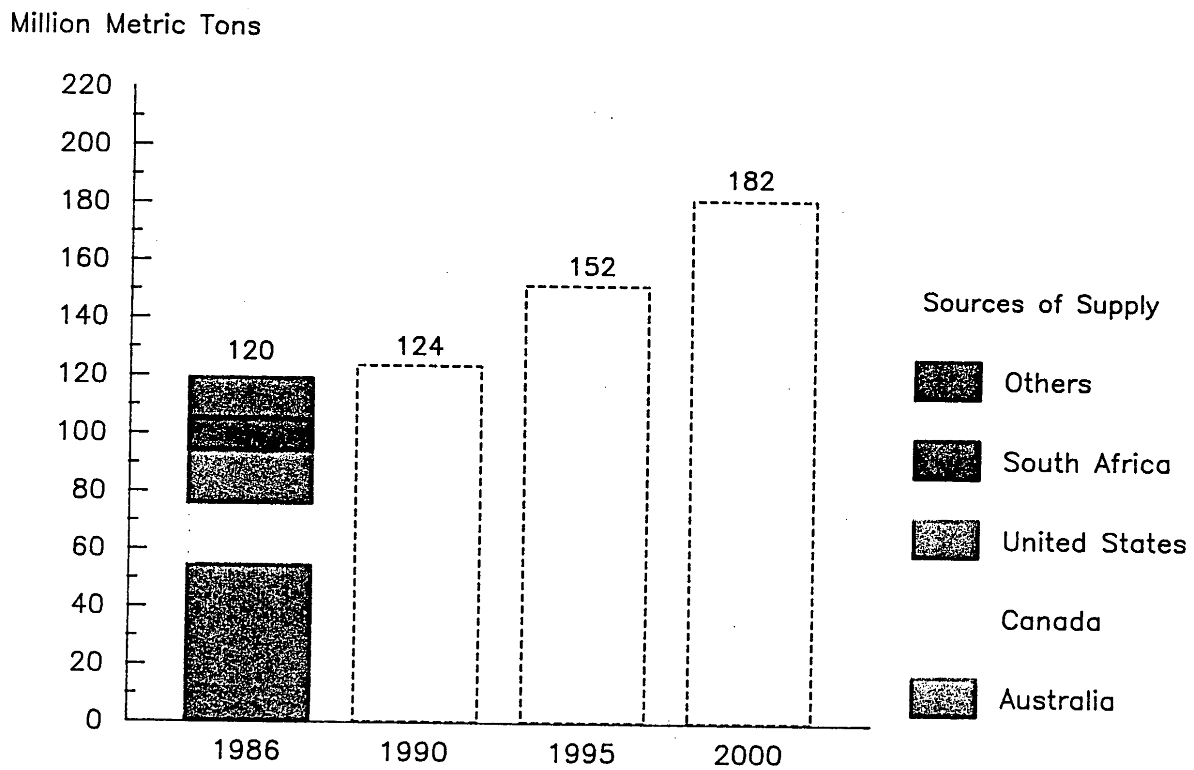


Table 1

1986 Coal Supply: Japan, South Korea, and Taiwan

(million metric tons)

Domestic production	40.4
Imports	119.5
Australia	54.4
Canada	21.1
United States	18.5
South Africa	10.9
USSR	5.3
China	3.5
Others	5.8
TOTAL	119.5

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Table 2

Japan's Coal Outlook

(million metric tons)

	1986	1990	1995	2000
Demand	105.4	110.0	122.0	146.0
Supply	105.4	110.0	122.0	146.0
Production	16.0	14.0	8.0	6.0
Imports	89.4	96.0	114.0	140.0
Met.	69.7	69.0	68.0	71.0
Steam	19.7	27.0	46.0	69.0

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Table 3

Japan's Coal Imports: 1986

(million metric tons)

	Met. Coal	Steam Coal	Total
Australia	29.2	12.7	41.9
Canada	16.3	1.3	17.6
United States	11.7	0.5	12.2
South Africa	5.0	3.0	8.0
USSR	4.4	0.9	5.3
China	2.3	1.2	3.5
New Zealand	0.3	---	0.3
Indonesia	0.3	.04	0.34
Colombia	0.2	.06	0.28
Total	69.7	19.7	89.4

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Table 4

South Korea's Coal Outlook

(million metric tons)

	1986	1990	1995	2000
Demand	41.8	45.7	46.4	47.1
Supply	41.8	45.7	46.4	47.1
Production	22.7	24.8	24.9	25.0
Imports	19.1	20.9	21.5	22.1
Met.	3.7	4.2	5.0	5.7
--US	1.0			
--South Africa	0.9			
--Other Asian	1.8			
Steam	15.4	16.7	16.5	16.4
--Australia	7.5			
--Canada	2.8			
--US	2.0			
--Others	3.1			

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Table 5

Taiwan's Coal Outlook

(million metric tons)

	1986	1990	1995	2000
Demand	12.7	16.0	18.0	21.0
Supply	12.7	16.0	18.0	21.0
Production	1.7	1.0	1.0	1.0
Imports	11.0	15.0	17.0	20.0
--Australia	5.0			
--United States	3.3			
--South Africa	2.0			
--Canada	0.7			

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Table 6

1986 World Coal Exports

(million metric tons)

Australia	92.0
United States	76.2
South Africa	44.0
Poland	35.3
Canada	27.2
USSR	25.4
West Germany	7.3
Colombia	5.6
United Kingdom	2.8
Others	18.9
Total	334.7

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Table 7

United States Coal Exports: 1986

(million metric tons)

	Met. Coal	Steam Coal	Total
Japan	11.7	0.5	12.2
Canada	5.8	6.9	12.7
Brazil	5.0	0.2	5.2
Italy	5.0	4.4	9.4
France	3.5	1.4	4.9
Belgium/Luxembourg	3.2	0.7	3.9
Netherlands	2.8	2.3	5.1
United Kingdom	2.5	0.1	2.6
Turkey	2.1	0.1	2.2
Spain	2.0	0.3	2.3
South Korea	1.8	0.7	3.0
Sweden	1.0	--	1.0
Romania	1.0	--	1.0
Denmark	0.4	1.6	2.0
Taiwan	0.2	3.1	3.3
Portugal	0.2	0.8	1.0
Others	1.7	3.2	4.4
Total	49.9	26.3	76.2

[redacted]

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